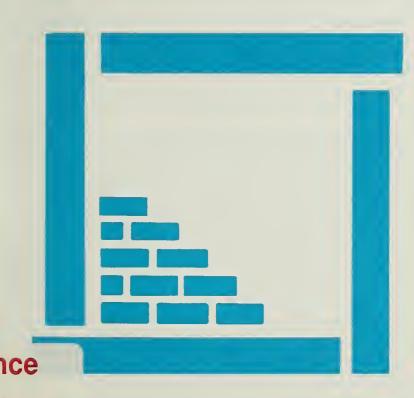
# Census of Construction Industries

CC87-1-5

**INDUSTRY SERIES** 

General Contractors— Nonresidential Buildings, Other Than Industrial Buildings and Warehouses

Industry 1542





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If you have any questions concerning the statistics in this report, call (301) 763-7546.

# 1987

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Issued January 1990



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#### PURPOSE AND USES OF THE ECONOMIC **CENSUSES**

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

#### **AUTHORITY AND SCOPE**

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the-

Census of Retail Trade Census of Wholesale Trade Census of Service Industries Census of Transportation Census of Manufactures Census of Mineral Industries

Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

#### **AVAILABILITY OF THE DATA**

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

#### WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan

areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

One important change involves receipts of contractors and builders. Prior to 1987, the Census of Construction Industries collected receipts as the primary measure of construction activity. For 1987, the census collected the "value of construction work done" to better measure actual construction activity done during the year. Differences between the two concepts occur when work is done in one year and payment received either from the prior or in the succeeding year. In addition, receipts do not include work a contractor performs for its own account and use.

#### HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying inter-

The economic censuses trace their beginnings to the 1810 Decennial Census, when guestions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in

other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

#### **AVAILABILITY OF MORE FREQUENT ECONOMIC DATA**

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as Current Construction Reports (building permits, housing starts, and value of new construction put in place), Current Business-Reports (retail and wholesale trade and service industries), the Annual Survey of Manufactures, Current Industrial Reports, and the Quarterly Financial Report. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The County Business Patterns program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

#### SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the Guide to the 1987 Economic Censuses and Related Statistics. More information on the methodology, procedures, and history of the censuses will be published in the History of the 1987 Economic Censuses. Contact Customer Services for information on availability.

#### **CENSUS OF CONSTRUCTION** INDUSTRIES—SCOPE AND CLASSIFICATION

The 1987 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property into lots as defined in the 1987 Standard Industrial Classification (SIC) Manual.1 This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction—The SIC manual defines construction in three broad types of activity that follow:

- 1. Building construction by general contractors or by operative builders- General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other building projects. Operative builders who build on their own account for sale are also included here. However, investment builders who build structures on their own account for rent are classified in Real Estate.
- 2. Heavy construction general contractors—Heavy construction general contractors are primarily engaged in the construction of highways, bridges, pipelines, sewers and water lines, marine construction, power, and petro-chemical plants and other nonbuilding construction projects. Special trade contractors are classified in heavy construction if they are specifically engaged in the following activities: grading for highway and airport runways; guardrail construction; installation of highway signs; asphalt and concrete construction of roads, highways, streets and public sidewalks; trenching, cable laying; conduit construction; underwater rock removal; pipeline wrapping; or land clearing and leveling.
- 3. Construction by other special trade contractors—These contractors include plumbers, painters, carpenters, electricians, brick layers, roofers, etc. For the most part, they perform their work at the site of construction, although they may also have shops where they perform work incidental to the job site.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

In addition to the industries classified in the SIC manual as Construction, this census also includes one industry

classified in the Real Estate area, SIC 6552, Land Subdividers and Developers, Except Cemeteries. These establishments are engaged in subdividing real property into lots and in developing it for sale on their own account.

Each establishment receiving a questionnaire was requested to report the percent of total dollar value of business done for each kind-of-business activity engaged in during 1987. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction work to total business was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities. It is necessary, however, to assign a single industry code to the establishment based on its major activity. Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities. The industry reports, however, do present data on the extent of secondary activities.

A revised edition of the SIC Manual was issued in 1987. Minor modifications were made to three industries in the construction sector: SIC 1611, Highway and Street Construction Contractors, Except Elevated Highways; SIC 1629, Heavy Construction Contractors, N.E.C; and SIC 1771, Concrete Work Special Trade Contractors. The extent of these modifications are explained in the specific texts for those industries. "Bridge tables" are also included showing selected data tabulated using both the previous classification system and the 1987 revision.

#### ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1987. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

<sup>&</sup>lt;sup>1</sup>Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

If an establishment engaged in construction and one or more distinctly different lines of economic activity (whole-sale or retail trade, service, manufacturing, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1987 value of construction work exceeded the gross receipts from each of its other activities.

Construction businesses with no payroll during 1987 (nonemployers) were not required to file census reports. Tabulation of data for these businesses are based on administrative records and are shown only in U.S. summary publications and the geographic area reports series. Refer to the section on "Sample Design" for details. Foreign construction activities were not included in this census.

### SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The companies included in the 1987 Census of Construction Industries were identified as part of an operation common to all 1987 Economic Censuses. Construction companies were divided into employers (companies with payroll) and nonemployers (companies without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government.

#### **Employer Companies**

Developing the sampling frame for employer companies—This operation started with obtaining a list of all construction companies in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of companies engaged in business activities in the United States. The file contains the name, address, and form of ownership of each company and also indicates whether or not the company is subject to the FICA. Each company in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each company. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative records data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer companies. However, for the 1987 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those companies which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment companies and large single-establishment companies. Thus, the 1987 Economic Census list for singleestablishment employer companies was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS. Refer to the section on "Establishment Basis for Reporting" for details.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a company to the proper economic census, but there were a number of companies for which this information was inadequate or unavailable. A special form, NC-9923, General Schedule, was mailed to all such companies, requesting information on the nature of the company's activities. From the information reported, the company was given an industrial classification code and assigned to the appropriate economic census. Since construction companies found in this way were identified only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

Selecting the employer sample—The sample was designed to provide reliable State and metropolitan area estimates for each construction industry. It consisted of all construction establishments in multiestablishment companies, all single-establishment companies with estimated total employment of 20 employees or more, and a probability sample of single-establishment companies with estimated employment of fewer than 20 employees.

Supplementing the sample were construction companies identified from the NC-9923, General Schedule. Also affecting the sample were the misclassified companies; i.e., companies included in the samples of other trade areas which reported they were construction companies and companies originally classified in construction which reported they were not construction companies.

Of the 533,000 single-establishment employer companies initially classified as construction companies, 147,000 were included in the sample. All of the 13,000 establishments of multiestablishment companies were included in the sample. There was a net increase in the sample of 60,000 establishments resulting from establishments originally unclassified (receiving the NC-9923) or misclassified.

The probability sample of the smaller single-establishment companies was a stratified random sample. Strata were formed from all establishments with the same initial four-digit SIC code, in the same State, in the same metropolitan

area or in the balance of the State, and in the same size class based on estimated total employment. If the four-digit SIC code for an establishment was incomplete, the establishment was placed in a stratum for miscellaneous companies. Because they were small, all companies were included in the sample for the following three industries: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

Estimation procedures for 1987 and 1982 data—Since all larger employer companies and some smaller ones were included in the census, sample estimation was required only for the universe of companies not selected with certainty. The published statistics are the totals of the estimates for the sampled companies and the aggregates for the certainty companies. All estimates for 1987 and 1982 published here are simple unbiased estimates of the form:

$$x'_{C} = \sum_{i=1}^{n} x_{i}/p_{i}$$

where: x' is the simple unbiased estimate of a characteristic for a publication cell.

x is the reported value of a characteristic for an individual establishment in the publication cell.

p, is the selection probability of that firm.

n<sub>c</sub> is the number of firms in the sample for the

Data for certain characteristics were reported as a percentage of the dollar value of business done. Before this formula was applied to those characteristics, it was necessary to convert the reported percentages into dollars.

Reliability of employer statistics—Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimated directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the

sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Relative standard errors have been calculated for all of the published statistics, although they are shown for each statistic only in the tables presenting detailed statistics. Other tables show relative standard errors only for certain characteristics because of lack of space.

As calculated for this report, the relative standard error measures certain nonsampling errors, but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples with the same size and design, between the estimates and the true value being estimated. Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

A potential source of bias is in the imputation for those establishments that have not responded by the time of final publication. Data were estimated for establishments that did not report by that date, although selected establishments were contacted again to obtain as much information on the telephone as possible. Some publication cells in which more than 40 percent of the data were not reported have been suppressed.

#### **Nonemployer Companies**

As described earlier, the information derived from the business income tax returns of all companies was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with companies without payroll were treated as nonemployers. The nonemployer construction companies were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return.

Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

#### **CENSUS REPORT FORMS**

Information for the 1987 Census of Construction Industries was obtained from employer establishments primarily through the use of twenty-four questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the following SIC groups: 15, 16, 171, 172, 173, 174, 175, 176, 177, 178, and 179 and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted some of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were elicited from construction trade associations and appropriate advisory groups. The Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

#### **DATA PROCESSING**

The 1987 census report forms were mailed out in December 1987. They were mailed from and returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished. Collection of these report forms was essentially completed in July 1988.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters near Washington, DC.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding), and imputation for missing items or for reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all

revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

#### GEOGRAPHIC CLASSIFICATION

Information for the 1987 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. A separate code was assigned on each basis allowing us to present data by both physical locations of the establishment and location of construction work.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected MSA's, CMSA's and PMSA's.

### DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work of one firm may be subcontracted to other construction firms and also be included in the subcontractors' value of construction work. To avoid this duplication, a "net" value of construction work figure has been derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work.

Duplication in value of business between other construction and nonconstruction industries, results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is defined in the 1987 Census of Construction Industries as equal to dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, land receipts are also subtracted from dollar value of business done.

#### **SPECIAL TABULATIONS**

Special tabulations of data collected in the 1987 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, DC, 20233.

To discuss a special tabulation before submitting specifications, call 301-763-7546.

#### COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1987 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes constructionrelated expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the Census of Construction.

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

#### ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- Sampling error exceeds 40 percent.
- \*\* Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
- Represents zero.
- † Represents value of construction work less costs for construction work subcontracted to others. (See Duplication in Value of Construction Work.)
- †† Represents dollar value of business done less costs for construction work subcontracted to others, and costs for materials, components, supplies, and fuels. In SIC's 1531 and 6552. land receipts are also subtracted from dollar value of business done. (See Duplication in Value of Construction Work.)
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- Not available. (NA)
- Withheld because estimate did not meet pub-(S) lication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
- (W) Greater than zero but less than 1 percent.
- (X) Not applicable.
- n.s.k. Not specified by kind.

# Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employment size	By size class of dollar value of business done	of	By specialization in types of constuction
Assets and depreciation (gross book value):						
Beginning of year—buildings, machinery and equipment	3				1	
End of year—total	1, 3	1	5	6		
End of year—buildings, machinery and equipment  Depreciation charges during year— buildings, machinery and equipment	3					
Capital expenditures:						
Total capital expenditures	1, 3	1	5	6		
New buildings—machinery and equipment	3					
Communication services, costs for	2					
Employees:						
All employees—average number	1, 2	1	5	6		8
Construction workers—average number  Other employees—average number	1, 2, 9	1, 9				
Employer costs for fringe benefits—legally required and voluntary expenditures	2					
Establishments—number in business during year	1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers:						
TotalQuarterly	1, 2, 9 2, 9	1, 9 9	5	6		-
Inventories	4					
Materials, components, supplies, and fuels—costs for	1, 2	1	5	6		
Payroll: First quarter, all employees	2					
All employees.	1, 2	1	5	6		8
Construction workers	1, 2	1				
Power, fuels, and lubricants—costs for	2					
Proprietors and working partners	2					
Ratios, State.	13	13				
Value and receipts:						
Dollar value of business done, total	2		5	6	11	
Value of construction work, total	1, 2, 4	1	5	6	2, 7, 10	8
For work subscontracted in from others  Other business receipts and land receipts <sup>2</sup>	2 2					
Net value of construction work	1, 2	1	5	6		8
Value added	1, 2	1	5	6		8
Rental costs: Total. For machinery and equipment For buildings.	1, 2 2 2	1	5	6		
Repairs to buildings and other structures.	2					
Repairs to machinery and equipment	2					
Selected industry ratios	12	-				
Subcontract work to others, costs for.	1, 2	1	5	6		8
Cubeditiate work to others, costs for	1, 2		3	8		8

Note: Data for 1982 and earlier years are also available in some of these tables.

<sup>&</sup>lt;sup>1</sup>Type—buildings, roads, etc. Class—new construction; additions, alterations, or reconstruction; or maintenance and repair work. Ownership—private or government owned.

<sup>2</sup>Land receipts are shown separately for SIC's 1531 and 6552 only.

#### CONTENTS

### General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses

[Page numbers listed here omit the prefix that appears as part of the number of each page] Page Ш Users' Guide for Locating Statistics in This Report by Table Number 2 Summary of Findings\_\_\_\_\_ **FIGURES** Value of Construction Work by Type of Construction \_\_\_\_\_\_ Selected Costs Per Dollar Value of Business Done **TABLES** Statistics for Establishments With Payroll 2. 3. 11. 12. 16 Statistics for Establishments Without Payroll appear in the U.S. Industry Summary Report. **APPENDIXES** Explanation of Terms \_\_\_\_\_\_Standard Industrial Classification Titles for Industry Groups and Industries \_\_\_\_\_ B.

Geographic Divisions and States

Publication Program \_\_\_\_\_ Inside back cover

#### SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the construction of commercial, institutional, religious, and amusement and recreational buildings (including new work, additions, alterations, remodeling, and repair). For additional examples, refer to the 1987 Standard Industrial Classification (SIC) Manual published by the Office of Management and Budget, Executive Office of the President.

During 1987, the establishments with paid employees classified in this industry accounted for \$91.7 billion in total dollar value of business. Of this amount, \$89.8 billion were for the value of construction work. These establishments paid out \$16.0 billion for materials, components, and supplies and \$50.3 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for this industry were \$600 million. Value added for 1987 was \$24.8 billion.

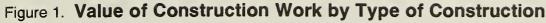
There were 31,337 establishments with total employment averaging 488,480 during the year. Total payroll for 1987 was \$11.8 billion. Total hours worked by construction workers during the year were 634 million hours.

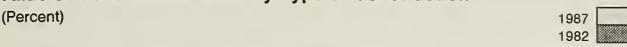
Larger establishments with 20 employees or more, while representing only 18 percent of the total number of employer establishments in this industry accounted for 77 percent of all business done.

A "construction establishment" is defined as a relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. A separate census report was required from each sampled establishment covering domestic operations. Separate reports were not, however, required for each project or construction site.

In 1987, the value of construction work was collected to better measure actual construction activity done during the year. Construction receipts, as reported in earlier censuses, may have included the value of work done before or after the calendar year and may have excluded the value of work in progress during the calendar year. Receipts may have also excluded work done by builders engaged in construction for sale on their own account or for their own use. All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

The data in this report are estimated from a sample survey and are subject to sampling variability as well as errors of response and nonreporting. The relative standard error shown in the tables is a measure of sampling variability. Descriptions of the sampling, estimating procedures, and data reliability are included in the Introduction.





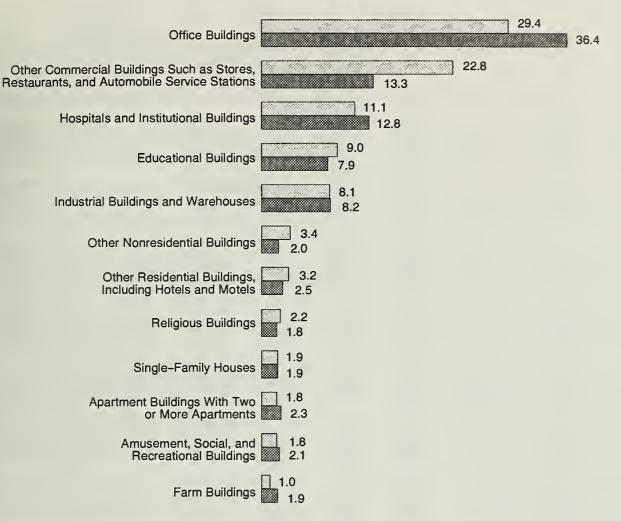
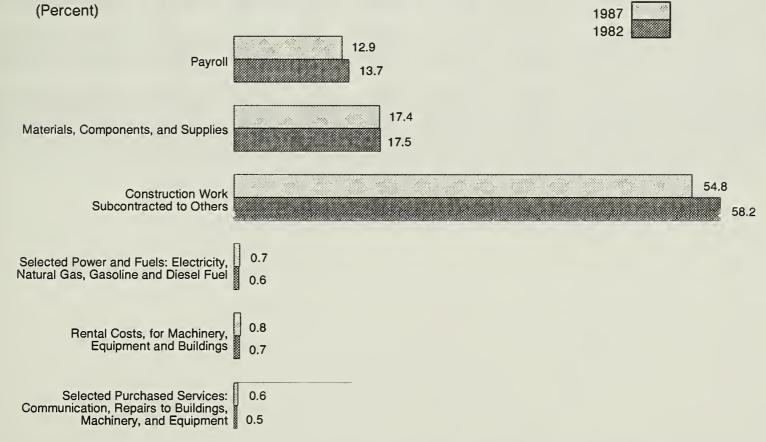


Figure 2. Selected Costs Per Dollar Value of Business Done



#### Table 1. General Statistics for Establishments With Payroll by State: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

				1	1987			
		Emplo	yees**	Pay	/roll			
Location of establishment	Number of establishments	All	Construction workers	All employees	Construction workers	Construction worker hours (thousands)	Value of construction work	Net value of construction work
	А	В	С	D	Е	F	G	н
United States	31 337	488 480	366 871	11 842 710	7 755 933	633 554	89 793 431	39 510 241
AlabamaAlaskaArizonaArkansasCalifornia	496	13 075	10 299	255 910	166 575	17 344	2 225 696	893 998
	136	2 769	2 074	100 719	57 010	3 791	426 884	304 552
	546	6 977	4 847	175 879	111 630	8 043	1 642 403	642 637
	318	4 633	3 635	78 353	54 046	6 382	571 098	305 741
	3 651	49 251	36 212	1 450 497	916 551	60 163	11 875 924	4 324 116
Colorado Connecticut Delaware District of Columbia Florida	582	9 364	6 816	233 148	166 811	12 823	2 166 885	829 184
	397	8 690	6 537	267 371	175 346	11 419	1 894 541	975 944
	52	1 130	835	25 537	16 805	1 534	179 836	71 040
	59	2 926	2 263	73 545	47 609	3 919	618 816	166 770
	1 939	29 275	21 818	591 930	366 046	36 820	4 661 665	2 092 433
Georgia	746	17 151	12 683	380 182	228 534	22 910	3 286 314	1 421 898
Hawaii	166	2 825	2 073	79 906	51 053	3 421	516 841	280 089
Idaho	137	1 253	942	24 278	16 255	1 485	202 591	98 006
Illinois	1 158	21 890	16 871	579 901	411 677	29 891	4 172 725	1 841 370
Indiana	551	9 037	7 014	218 480	154 363	12 186	1 300 643	635 701
lowaKansasKentucky	423	4 792	3 579	104 748	72 616	6 826	719 968	332 939
	453	5 236	4 015	116 206	79 011	6 760	861 120	409 635
	323	5 431	4 253	106 510	73 177	7 696	726 998	363 650
	472	6 483	4 875	118 975	77 004	8 530	910 398	412 769
	157	2 563	2 038	50 514	33 016	3 271	317 027	170 142
Maryland	568	16 726	12 765	412 752	254 786	19 996	3 345 732	1 341 475
	805	13 440	10 038	369 016	237 593	17 201	2 528 221	1 205 109
	1 006	10 838	8 048	274 410	185 170	14 328	2 216 361	914 336
	531	7 912	6 025	198 580	142 708	10 254	1 681 795	593 771
	281	4 306	3 404	73 677	53 012	5 763	532 056	268 496
Missouri	757	11 256	8 235	317 523	213 609	15 203	2 094 156	925 503
	159	1 018	740	18 544	13 004	941	141 287	71 480
	268	3 163	2 412	61 399	41 003	3 884	435 551	249 007
	186	2 087	1 553	47 859	33 132	1 998	416 718	170 926
	179	3 293	2 486	79 522	51 974	4 079	498 313	231 347
New Jersey	921	15 310	11 315	411 511	270 667	19 577	2 899 495	1 290 879
	241	3 100	2 327	57 180	38 344	3 536	471 352	228 998
	1 957	30 219	22 273	856 734	533 678	39 148	6 007 129	2 817 043
	634	13 173	10 132	252 033	166 147	18 479	2 026 515	1 054 692
	120	1 045	796	19 762	13 664	1 478	121 942	68 422
OhioOklahomaOregonPennsylvaniaRhode Island	1 289	16 802	12 660	416 367	278 266	22 264	3 294 245	1 556 001
	323	4 452	3 390	87 884	58 040	5 106	640 077	290 596
	396	3 214	2 242	80 706	51 954	3 727	683 032	268 254
	1 390	22 163	16 865	553 862	378 283	30 106	3 932 849	1 786 395
	131	1 920	1 456	54 593	37 198	2 594	448 428	181 430
South CarolinaSouth DakotaTennesseeTexasUtah	390	7 113	5 525	134 798	90 138	9 763	802 236	461 755
	148	1 211	962	21 902	15 532	1 777	140 492	85 500
	603	13 554	10 484	280 707	180 650	18 003	2 253 954	1 054 408
	2 215	34 889	25 684	757 859	481 195	44 135	6 107 616	2 632 233
	340	3 152	2 285	70 862	44 686	3 825	636 672	268 900
Vermont Virginia Washington West Virginia Wisconsin Wyoming	96	2 232	1 346	50 660	33 181	2 351	306 608	171 410
	806	14 466	11 156	318 853	205 718	20 362	2 245 655	972 516
	986	11 049	8 361	279 459	196 794	13 749	2 041 106	953 793
	195	1 957	1 540	36 662	28 027	2 382	176 259	115 444
	530	7 587	5 821	194 181	137 774	10 626	1 174 550	647 219
	101	1 057	840	20 242	14 849	1 678	134 633	60 266

<sup>&</sup>lt;sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

		1987-	·Con.				1982					
Value added††	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted to others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Total construction receipts1	Value added††	error (pe	ve stan of estir rcent) f olumn-	nate or	Location of establish- ment
	J	К	L	М	N	0	Р	Q	В	н	М	
24 830 667	16 585 116	50 283 190	<b>72</b> 0 <b>58</b> 5	571 238	4 345 808	359 <b>8</b> 56	52 304 554	12 512 366	(W)	(W)	2	U.S.
450 271 204 992 465 505 170 131 2 983 346	104 395 283 672 157 802	1 331 698 122 331 999 766 265 357 7 551 808	13 705 6 279 10 931 6 174 117 707	22 126 1 794 7 477 4 084 57 574	106 440 29 149 54 003 38 981 420 763	8 213 2 123 4 585 2 788 33 540	929 748 358 099 807 915 327 487 6 760 452	171 836 127 309 209 459 107 266 1 324 401	23352	3 5 3 4 1	6 10 16 12 3	AL AK AZ AR CA
546 277 694 447 45 679 115 214 1 218 979	314 248 30 519 57 807	1 337 701 918 596 108 796 452 045 2 569 231	11 730 15 630 1 107 3 665 35 289	7 695 21 359 1 190 1 733 25 543	80 225 113 758 8 024 16 281 179 722	9 420 5 206 674 1 692 20 683	1 693 334 697 020 98 753 277 256 2 501 439	420 423 185 836 22 270 98 976 600 529	3 2 6 3 2	4 1 4 4 2	9 3 12 10 7	CO CT DE DC FL
765 438 188 830 51 386 1 257 118 394 493	93 672 49 798 63 635 431	1 864 416 236 752 104 584 2 331 355 664 942	28 547 4 675 1 303 26 880 11 375	13 781 3 508 1 314 26 683 14 214	93 382 31 147 13 320 252 775 103 308	10 999 2 060 1 265 12 706 6 689	1 295 132 348 506 194 028 1 868 686 708 621	298 130 93 189 76 068 517 785 226 352	2 5 9 3 2	2 3 7 2 2	10 11 24 9 17	GA HI ID IL IN
187 57: 244 72: 204 88: 224 51: 91 72:	213 833 178 610 1 202 975	387 029 451 484 363 348 497 629 146 884	3 927 7 254 7 286 8 848 3 310	7 291 5 619 7 330 4 750 4 266	69 643 57 418 39 512 65 243 28 251	4 966 4 488 3 656 8 489 1 180	535 071 548 304 367 549 1 042 669 109 276	153 354 141 670 108 510 229 474 30 998	4 4 3 4 5	4	9 11 8 10 17	IA KS KY LA ME
906 43 767 35 578 15 316 38 126 78	8 462 956 1 376 027 0 322 811	2 004 257 1 323 112 1 302 025 1 088 023 263 559	25 897 22 302 12 147 10 652 5 695	18 717 21 769 20 311 11 162 4 217	111 477 103 787 127 462 77 674 38 987	8 099 8 388 6 466 7 096 2 304	1 278 736 1 546 249 1 071 083 1 085 905 190 297	318 516 326 817 272 815 367 660 48 596	3 3	2 2 3 3 5	7 10 9 9 24	MD MA MI MN MS
677 35 40 05 131 74 104 44 141 49	6 34 038 1 127 371 1 68 837	69 807 186 544 245 791	10 469 990 2 587 3 637 5 793	11 542 536 3 179 2 348 4 535	130 789 8 835 46 966 15 015 32 587	9 337 1 296 3 524 1 324 1 786	1 278 858 119 246 316 224 273 532 182 685	288 269 37 941 92 858 71 238 47 776	15 5 10	14	9 35 14 17 8	MT NE NV
942 04 139 22 1 989 95 597 49 33 64	0 97 553 5 1 015 485 9 498 893	242 353 3 190 086 971 822	24 100 4 350 49 365 12 636 887	21 434 3 856 37 560 15 711 1 733	127 041 30 309 246 745 105 750 19 149	8 642 4 024 18 474 8 041 1 617	1 132 935 338 223 3 064 162 842 179 162 900	297 175 129 901 790 666 217 217 44 387	7 2 3	1 9 1 4 7	10	NM NY NC
961 42 150 30 165 37 1 177 02 96 45	11 143 125 70 112 073 711 790	349 480 414 777 2 146 453	27 257	17 740 3 159 4 148 27 658 3 161	193 637 33 110 30 426 182 372 21 994	3 578 12 956	629 169 1 843 063	372 634 252 851 139 180 498 764 89 101	5 2	5 5	18 14 8	OK OR PA
248 36 45 2 584 65 1 439 2 175 79	19 42 928 58 486 777	54 992 7 1 199 546	615 18 277	6 787 1 389 13 279 29 215 3 868	51 072 18 432 92 828 281 358 37 724	1 147 7 869 43 654	104 849 1 172 918 6 976 456	109 030 29 389 220 789 1 276 397 110 969	9 2	1	15	SD TN TX
77 04 565 31 606 00 72 44 436 91 30 94	95 714 38 427 155 376 269 40 47 133 55 261 162	1 273 139 1 087 312 3 60 815 2 527 330	20 727 17 442 1 216 8 843	17 590 8 036 2 087	25 273 126 531 96 915 14 646 96 328 19 219	7 291 9 283 1 604 6 894	886 046 1 440 864 127 872 648 965	13 08: 234 49: 344 806 49 67: 214 856 60 66:	2 3 2 9 3 3	2 2 7 2	32	WA WA WV

#### Table 2. Detailed Statistics for Establishments With Payroll: 1987 and Earlier Census Years

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[Thousand donars. Detail may not add to total due to rounding. For meaning of abbreviations and symbol	13, 300 1111 0000010	ory text. I or ex	Janauon or ten	ns, see append	ivo2ì			
Item						ive stan stimate		
· · · · · · · · · · · · · · · · · · ·	1987	1982	1977	1972	1987	1982	1977	1972
Number of establishments in business during year	31 337	22 112	18 467	25 658	1	1	1	2
Proprietors and working partners	4 784	4 682	7 481	13 027	4	3	3	3
All employees**	488 480	359 856	311 588	395 059	(W)	(w)	(W)	1
Construction workers:								
March	342 442 361 771	262 170 277 805	224 057 251 907	292 522 322 614	(W)	(W)	88888	1
AugustNovember	392 270 371 002	294 283 269 370	278 415 262 203	364 165 338 932	1	(W)	(W)	
Average	366 871	278 193	254 360	332 741	(W)	(W)	(W)	1
Other employees:  March	120 699	81 416	55 820	60 424	1	1	w	
May	121 409 122 298	(NA) (NA)	(NA) (NA)	(NA) (NA)	1	(NA)	(W) (NA) (NA)	(NA (NA
November	122 044	(NA)	(NA)	(NA)	1	(NA) (NA)	(NA)	(NA
Average	121 613	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA
Construction worker hours (thousands):  January to March	143 939	105 788	(NA)	(NA)	1	(w)	(NA)	(NA
April to June July to September	157 139 170 470	116 316 133 289	(NA) (NA)	(NA) (NA)	1 1	(W)	(NA)	(NA (NA (NA
October to December	162 005 633 554	113 589 468 984	(NA) (NA)	(NA) (NA)	1	(W)	(NA) (NA) (NA)	(NA (NA
								(IVA
Payroll, all employees Payroll, construction workers	11 842 710 7 755 933	7 260 046 5 084 654	4 274 933 3 189 805	3 991 172 3 147 519	(%) (%)	(W)	(S) (S)	:
Payroll, other employees	4 086 776	2 175 392	1 085 128	843 653	(W)	(W)	(W)	1
First quarter payroll, all employees	2 666 992	1 677 757	888 523	(NA)	(W)	(W)	(W)	(NA)
Employer costs for fringe benefits, all employees	2 680 400	1 348 806	863 668	(NA)	(w)	(w)	(W)	(NA
Legally required expenditures	1 780 371 900 029	991 426 357 379	483 485 380 183	(NA) (NA)	(W)	(W)	(S) (S) (S)	(NA) (NA)
Dollar value of business done	91 698 973	52 824 851	27 400 418	24 034 963	(w)	(W)	(W)	1
Value of construction work <sup>1</sup> Value of construction work subcontracted in from others	89 793 431 3 024 631	52 304 554 1 101 307	27 137 768 422 085	23 789 051 372 407	(W)	(W)	(W)	
Land receipts <sup>2</sup> Other business receipts	(NA) 1 905 541	(NA) 520 297	(NA) 262 649	(NA) 245 912	(NA)	(NA)	(NA)	(NA
							2	
Net value of construction work†	39 510 241	21 546 587	12 816 028	11 141 896	(W)	(W)	(W)	1
Value added††	24 830 667	12 512 366	7 112 256	6 500 530	(W)	(W)	(W)	1
Selected costsMaterials, components, and supplies <sup>3</sup>	66 868 306 15 984 990	40 312 485 9 221 961	20 288 148 5 716 533	17 534 433 4 887 278	(W)	(W)	(W)	1
Construction work subcontracted to others	50 283 190	30 757 966	14 321 740	12 647 155	(w)	(W)	(w)	(NA
Selected power, fuels, and lubricants	600 125 123 906	332 557 76 137	249 875 54 786	(NA) (NA)	1	1	1	(NA
Natural gas Gasoline and diesel fuel	34 593 404 289	19 329 213 704	26 461 126 433	(NA) (NA)	2		1	(NA (NA
On highway useOff highway use	337 666 66 622	(NA) (NA)	(NA) (NA)	(NA) (NA)	1 1	(NA) (NA)	(NA) (NA)	(NA (NA (NA
Other, including lubricating oils and greases	37 337	23 385	42 197	(NA)	1 2	1	1	(NA
Rental cost for machinery, equipment, and buildings	720 585	382 584	186 287	(NA)	1	1	(W) (W)	(NA
For machinery and equipmentFor buildings	463 535 257 050	291 640 90 943	149 013 37 274	165 973 (NA)	1	(W)	(W) 1	(NA
Selected purchased services	524 397	277 681	191 570	(NA)	1	1	1	(NA
Communication services	206 968 46 304	117 359 22 018	75 391 16 060	(NA) (NA)	1 2	1	2	(NA
Repairs to machinery and equipment	271 124	138 303	100 120	(NA)	1	i	1	(NA)
Ownership of construction projects:	90 700 404	E0 004 554	07 407 700	22 700 054	040	OAD.	OAD.	
Value of construction work <sup>1</sup> Government owned	89 793 431 19 268 927	52 304 554 10 016 229	27 137 768 8 425 879	23 789 051 8 856 075	(W)	(W)	(W)	1
Federal State and local	5 530 635 13 738 291	(NA) (NA)	(NA) (NA)	(NA) (NA)	1	(NA) (NA)	(NA) (NA)	(NA)
Privately owned	70 524 504	42 288 325	18 711 890	14 932 976	1	(W)	(NA) (W)	1

In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.
2Data were collected separately for establishments classified in SIC 1531, Operative Builders, and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.
3For 1972, includes data for power, fuels, and lubricants.

### Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see Introductory text. For explanation of terms, see appendixes]

Item			Relative standard error of (percent)	of estimate
	1987	1982	1987	1982
BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT				
Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New Used Retirements and disposition of depreciable assets	4 021 836 571 238 444 253 126 984 247 266	3 891 141 474 605 390 782 83 822 151 819	2 2 2 2 3 2	1 1 1 2 4
End-of-year gross book value of depreciable assets	4 345 808	4 213 927	2	(W)
Depreciation charges during year	528 284	443 106	2	1
Buildings and other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New buildings and other structures Used buildings and other structures Retirements and disposition of depreciable assets	1 170 111 123 161 83 138 40 023 62 029	931 499 182 222 160 388 21 833 33 924	5 3 4 7 4	1 1 1 4 3
End-of-year gross book value of depreciable assets	1 231 243	1 079 732	4	1
Depreciation charges during year	105 626	74 620	7	1
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets  Capital expenditures, other than land  New machinery and equipment, including automobiles and trucks  New automobiles and trucks, intended primarily for highway use  Used machinery and equipment, including automobiles and trucks  Retirements and disposition of depreciable assets	2 851 724 448 076 361 115 185 959 86 961 185 236	2 959 642 292 383 230 393 97 194 61 989 117 895	1 2 2 2 2 3 2	1 1 1 2 2 5
End-of-year gross book value of depreciable assets	3 114 565	3 134 130	1	1
Depreciation charges during year	422 658	368 486	2	1

#### Table 4. Value of Inventories for Establishments With Payroll: 1987 and 1986

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments:  Number  Value of construction work	31 337 89 793 431	, 1 (W)
Establishments with inventories: Number	10 003 30 188 046	2
End of 1987, materials and suppliesEnd of 1986, materials and supplies	509 617 377 113	2 3
Establishments with no inventories:  Number  Value of construction work	17 199 45 128 461	2 1
Establishments not reporting: Number Value of construction work	4 135 14 476 924	3

<sup>&</sup>lt;sup>1</sup>Inventories at cost or market prior to any adjustment to correct to LIFO values.

#### Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

					Establishn	nents with an a	average of—			
Selected statistics	Total	1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
1987										
Number of establishments  All employees** Payroll, all employees Construction worker hours (thousands) Dollar value of business done Value of construction work¹ Net value of construction work†	31 337 488 480 11 842 710 633 554 91 698 973 89 793 431 39 510 241	12 713 27 010 477 850 28 586 4 139 112 4 063 082 2 253 044	7 462 48 950 937 516 54 558 6 334 341 6 234 979 3 378 776	5 537 74 757 1 628 175 88 889 10 996 629 10 826 988 5 588 461	3 795 114 115 2 815 808 149 212 19 929 443 19 635 847 9 033 494	1 204 81 026 2 076 900 114 143 16 005 963 15 778 608 6 743 646	469 68 482 1 895 465 96 165 16 535 307 16 042 480 6 044 803	114 36 062 1 012 235 49 209 9 819 952 9 562 567 3 490 022	31 20 512 576 524 28 835 4 918 898 7 648 879 2 977 994	11 17 563 422 235 23 955 3 019 326 (D)
Value added††	24 830 667 16 585 116 50 283 190 720 585 571 238 4 345 808	1 325 414 1 003 659 1 810 037 39 511 46 358 345 549	2 029 296 1 448 841 2 856 203 64 976 71 944 548 532	3 460 630 2 297 472 5 238 527 90 502 97 859 748 543	5 514 887 3 812 202 10 602 352 155 843 142 722 1 046 642	4 140 848 2 830 152 9 034 962 122 797 86 650 722 482	3 980 248 2 557 382 9 997 677 126 335 60 479 492 530	2 355 663 1 391 744 6 072 545 77 597 24 309 195 756	1 330 187 895 575 2 693 136 25 382 13 573 125 430	693 491 348 086 1 977 749 17 640 27 342 120 342
All employees**	359 856 52 304 554 12 512 366	20 541 1 878 771 557 577	32 697 3 135 404 1 010 968	51 389 5 646 576 1 708 134	80 471 10 834 405 2 880 216	55 047 9 033 166 2 167 868	52 327 9 224 580 1 821 244	34 619 6 547 713 1 296 054	20 081 4 232 897 1 070 303	12 683 1 771 041 (D)
All employees** Net value of construction work† Capital expenditures, other than land	(W) (W) 2	2 3 7	2 2 7	2 2 4	1 1 3	(W) 3	(%) (%) (%)	(W) (W) (W)	(%) (%)	(W) (D) (W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

#### Table 6. Selected Statistics by Size Class of the Dollar Value of Business Done for Establishments With Payroll: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Establishments with dollar value of business done									
Selected statistics	Total	Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1987											
Number of establishments  All employees** Payroll, all employees  Construction worker hours (thousands)  Dollar value of business done  Value of construction work¹  Net value of construction work†	31 337 488 480 11 842 710 633 554 91 698 973 89 793 431 39 510 241	(S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S)	4 988 16 350 207 011 18 489 849 780 834 870 624 270	4 925 25 181 395 413 29 348 1 788 368 1 757 823 1 211 759	5 094 40 327 713 074 47 775 3 607 849 3 548 017 2 225 372	5 527 70 505 1 493 762 83 102 8 755 748 8 616 749 4 882 530	2 917 67 811 1 596 946 88 336 10 215 028 10 054 443 5 167 030	1 735 64 950 1 667 225 87 811 12 053 339 11 860 574 5 636 505	1 694 195 743 5 698 213 271 796 54 208 211 52 906 270 19 599 763
Value added††	24 830 667 16 585 116 50 283 190 720 585 571 238 4 345 808	(S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S)	383 580 255 599 210 600 11 052 16 231 123 639	718 665 523 639 546 063 27 713 26 599 220 250	1 334 214 950 990 1 322 645 40 470 59 781 358 317	2 943 736 2 077 793 3 734 219 85 615 91 397 681 726	3 219 900 2 107 715 4 887 412 86 389 97 826 794 360	3 361 380 2 467 889 6 224 069 95 753 78 553 586 798	12 763 382 8 138 322 33 306 507 370 369 197 180 1 547 260
All employees**	359 856 52 304 554 12 512 366	1 517 17 164 5 957	1 892 42 938 15 959	4 514 137 451 51 696	13 743 648 167 247 039	20 541 1 264 287 457 822	31 908 2 438 234 806 547	51 669 5 166 385 1 644 771	46 870 5 677 444 1 673 661	45 704 6 696 202 1 752 178	141 495 30 216 279 5 856 734
All employees** Net value of construction work† Capital expenditures, other than land	(W) (W) 2	(S) (S) (S)	(S) (S) (S)	(S) (S) (S)	4 3 9	3 3 8	3 3 7	2 2 5	1 1 4	1 1 2	(W) (W) 1

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

In earlier censuses construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

#### Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Value of cons	truction work1					
Type of construction	Total	New construction	Additions, alterations, or reconstruction <sup>2</sup>	Maintenance and repair		elative sta of estimate for col	e (percen	
	A	В	С	D	Α	В	С	D
1987								
Value of construction work <sup>1</sup>	89 793 431	62 922 133	22 451 376	2 481 494	(W)	(W)	1	1
Building construction Single-family houses Single-family houses, detached Single-family houses, attached Apartment buildings with two or more apartments	1 746 350 1 333 895 412 455 1 586 133	61 633 448 1 116 019 783 367 332 652 1 209 403	21 936 784 524 178 457 555 66 622 324 999	2 398 198 106 153 92 972 13 180 51 730	(W) 2 2 2 1	(W) 2 3 3	1 3 3 7 3	1 4 5 8 5 7 8
Other residential buildings, including hotels and motels Hotels and motels Other residential buildings, excluding hotels and motels Office buildings Other commercial buildings such as stores, restaurants, and automobile service	2 890 685 1 907 398 983 286 26 438 662	2 461 153 1 675 907 785 246 19 154 579	390 895 216 442 174 453 6 676 427	38 635 15 048 23 586 607 655	1 1 (W)	1 1 (W)	2 3 4 1	10 3
stations Industrial buildings and warehouses Industrial buildings Warehouses Religious buildings Educational buildings Hospitals and institutional buildings	5 062 087 2 181 669 1 975 064 8 048 930 9 935 109	14 569 596 5 411 855 3 613 717 1 798 137 1 371 430 5 381 754 6 857 235	5 205 611 1 531 673 1 198 173 333 500 555 422 2 509 590 2 918 446	728 060 300 228 250 196 50 032 48 212 157 585 159 428	1 1 1 2 1 1 1	1 1 1 2 1 1	1 1 2 3 2	2 2 2 5 5 6 4 9 12 7
Farm buildings	873 340 1 646 644	714 651 1 329 776 2 055 991	98 451 295 263 905 825	60 237 21 603 118 665	5 1 2	5 1 2	10 3 3	9 12 7
Nonbuilding construction	1 886 576	1 288 686	514 593	<b>8</b> 3 <b>2</b> 96	1	1	2	4
Construction work, n.s.k.	1 938 429	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
1982								
Value of construction work <sup>1</sup>	52 304 554	38 062 403	12 060 126	2 182 024	(W)	(W)	(W)	1
Building construction Single-family houses Single-family houses, detached Single-family houses, attached Apartment buildings with two or more apartments Other residential buildings, including hotels and motels Hotels and motels Other residential buildings, excluding hotels and motels Other residential buildings, excluding hotels and motels Office buildings Other commercial buildings such as stores, restaurants, and automobile service	1 018 725 658 023 360 702 1 212 104 1 293 244 (NA) (NA)	35 529 581 643 471 356 284 287 187 991 174 1 012 455 (NA) (NA) 14 831 889	11 239 010 284 814 223 396 61 417 172 683 244 589 (NA) (NA) 3 597 577	1 934 892 90 440 78 343 12 097 48 247 36 200 (NA) (NA) 614 438	(W) 1 2 2 1 (W) (NA) (NA) (W)	(W) 1 2 2 1 (W) (NA) (NA) (NA)	(W) 2 2 5 2 1 (NA) (NA)	1 2 3 6 5 2 (NA) (NA)
other commercial buildings such as stores, restaurants, and automobile service stations  Industrial buildings and warehouses Industrial buildings  Warehouses Religious buildings  Educational buildings Hospitals and institutional buildings  Farm buildings Amusement, social, and recreational buildings  Other nonresidential buildings	4 295 640 3 006 710 1 288 930 942 320 4 150 442 6 673 269 974 407 1 102 118	4 826 454 3 122 838 2 074 102 1 048 735 647 660 2 803 651 4 370 361 775 038 808 127 696 463	1 733 246 951 354 747 780 203 574 247 420 1 198 770 2 154 886 128 374 247 526 277 766	384 501 221 448 184 828 36 620 47 239 148 020 148 021 70 995 46 464 78 873	1 (W) (W) 1 2 1 (W) 2 1	1 (W) (W) 1 2 1 (W) 2 1	1 1 1 1 3 1 1 3 2 3	2 1 2 2 7 2 2 4 4 6
Nonbuilding construction	1 018 002	764 957	<b>1</b> 56 <b>2</b> 59	96 <b>78</b> 6	1	(W)	1	2
Construction work, n.s.k.	2 583 067	1 <b>767 8</b> 66	664 856	150 345	1	1	1	2

In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

In 1982, data for additions, alterations, or reconstruction were collected separately for SIC 1521, 1522, 1531, 1541, and 1542. For all other industries, data are included with "New construction."

#### Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1987

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected stetistics for establishments according to degree of specialization in mejor types of construction work. If number of establishments or value of construction work for a given type of specialization ere reletively insignificant, data may not be shown. In eddition, data ere not shown in this teble where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

appendixes]										,	
					onstruction ork	Net		Cost of construction	stan	eletive dard er	rror
item	Number of establishments	All employees**	Peyroll, all employees	For all types	For specielized type	velue of construction work†	Velue added††	work sub- contrected to others	(pei	estimat rcent) f olumn-	for
	Α	В	С	D	E	F	G	н	В	D	Н
All establishments	31 337	488 480	11 842 710	89 793 431	43 043 879	39 510 241	24 830 667	50 283 190	(W)	(W)	(W)
Establishments not specializing by typeEstablishments specializing 51 percent or more	8 484 22 852	193 575 294 905	4 731 713 7 110 996	36 100 644 53 692 787	(NA) 43 043 879	15 450 840 24 059 401	9 578 927 15 251 <b>7</b> 39	20 649 804 29 633 385	1 1	(W)	1 (W)
OFFICE BUILDINGS											
All esteblishments specializing in type	5 140	93 585	2 591 942	21 624 169	17 046 811	8 569 386	<b>5</b> 888 89 <b>7</b>	13 054 782	1	1	1
Establishments with — 100 percent specialization	1 723	21 061	585 937	4 240 821	4 240 821	1 843 863	1 248 804	2 396 957	2	2	2
90 to 99 percent specialization 80 to 89 percent specialization	631 658 738	12 610 16 814 15 061	345 027 458 224 413 696	2 825 158 4 267 591 3 663 060	2 646 585 3 546 992 2 696 869	1 239 290 1 449 703 1 358 688	867 151 959 307 934 901	1 585 867 2 817 888 2 304 372	5	2 1 1	2 1
70 to 79 percent specialization	879 508	16 402 11 635	457 859 331 196	3 580 392 3 047 145	2 255 124 1 660 418	1 523 555 1 154 284	1 120 731 758 001	2 056 836 1 892 860	2 2 2	1 2	2 1 2
OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS											
All establishments specializing in type	8 304	104 084	2 373 382	16 544 590	13 796 701	7 982 304	4 926 591	8 <b>562 2</b> 86	1	1	1
Establishments with — 100 percent specialization 90 to 99 percent specialization	3 732 876	41 330 11 267	961 990 264 470	6 393 024 1 801 693	6 393 024 1 683 118	3 262 186 813 184	2 120 196 512 417	3 130 837 988 508	2 4	2	2
80 to 89 percent specialization 70 to 79 percent specialization	814 964	11 771 13 248	264 000 295 911	1 871 549 2 125 687	1 557 143 1 559 054	887 610 1 000 621	508 847 596 722	983 939 1 125 065	3	3 2 2 3	234222
60 to 69 percent specialization	1 201 715	16 204 10 261	351 042 235 967	2 785 298 1 567 337	1 752 445 851 916	1 244 418 774 282	749 148 439 260	1 540 880 793 054	3	3	2
RELIGIOUS BUILDINGS											
All establishments specializing in type	650	5 352	107 420	<b>667 5</b> 89	508 784	328 650	216 260	338 93 <b>9</b>	6	5	6
Establishments with — 100 percent specialization	160 67	1 164 592	26 833 9 241	181 240 60 345	181 240 55 755	78 654 36 122	73 313 18 249	102 585 24 222	10 20	11 15	10 11
90 to 99 percent specialization	127 53	680 687	12 249 11 637	70 934 59 084	57 864 43 484	41 663 38 710	25 368 19 880	29 271 20 373	15	19 15	25 18
60 to 69 percent specialization	143 98	1 267 960	25 532 21 926	143 135 152 850	89 011 81 427	68 069 65 430	38 590 40 858	75 066 87 420	12 13	12 9	14 10
EDUCATIONAL BUILDINGS											
All establishments specializing in type	1 584	25 143	545 476	4 584 485	3 414 473	1 960 083	1 141 764	2 624 402	2	2	2
Establishments with — 100 percent specialization 90 to 99 percent specialization	398 177	3 243 3 016	67 562 61 661	617 111 581 787	617 111 540 611	296 615 227 375	178 015 123 975	320 496 354 411	7 5	5 5	6 5
70 to 79 percent specialization	228 266	3 443 5 126	70 397 109 467	558 602 978 683	460 344 712 470	245 380 404 899	153 053 230 173	313 222 573 784	6	4 4	5 5
60 to 69 percent specialization51 to 59 percent specialization	301 212	5 753 4 560	132 559 103 828	1 070 618 777 680	658 896 425 038	434 987 350 824	258 873 197 673	635 631 426 856	5 4	4 4	5 4
HOSPITALS AND INSTITUTIONAL BUILDINGS											
All establishments specializing in type  Establishments with —	1 332	27 429	685 444	4 887 633	3 644 966	2 238 923	1 401 890	2 648 710	2	2	1
100 percent specialization 90 to 99 percent specialization	204	5 291 2 503	141 973 57 422	903 473 407 272	903 473 379 051	398 026 224 651	233 119 165 667	505 447 182 621	8	5 11	5 5
80 to 89 percent specialization	110 177	2 928 4 057 7 479	68 346 116 962 166 511	556 432 928 932 1 026 423	454 526 682 495 646 200	311 440 417 560 448 050	208 738 278 623 274 263	244 991 511 371 578 372	4 4 2	3 2 3	3 2
51 to 59 percent specialization	206	5 169	134 229	1 065 099		439 193	241 476	625 906		3	2 2
FARM BUILDINGS			440				202 203	404.05-			
All establishments specializing in type  Establishments with —	1 314	7 904	113 190	738 055	646 326	616 117	292 291	121 937	5	6	11
100 percent specialization 90 to 99 percent specialization	207	3 252 1 646	41 653 23 065	307 291 144 300	307 291 134 715	260 047 123 294 81 692	121 901 54 238	47 244 21 005	12	10 18 12	16 40
80 to 89 percent specialization 70 to 79 percent specialization 60 to 69 percent specialization	135	1 044 752 706	15 217 13 034 10 889	100 226 81 521 57 917	82 265 59 652 36 585	65 572 47 328	45 981 27 064 24 781	18 534 15 948 10 588	13	11 18	24 5 34 8
51 to 59 percent specialization	124	502	9 329			38 181	18 323	8 616		8	8
OTHER NONRESIDENTIAL BUILDINGS  All establishments specializing in type	1 234	11 282	266 485	1 898 196	1 575 004	926 807	E4E 000	971 389	4	3	3
Establishments with —		11 282	200 485	1 696 196	1 575 921	920 807	545 293	9/1 389	4	3	3
100 percent specialization 90 to 99 percent specialization 80 to 89 percent specialization	158	5 194 1 453 971	113 019 34 388 29 192	688 225 280 852 244 220	263 442	344 483 157 367 105 531	217 251 67 500 64 234	343 741 123 485 138 689	9	11 5	12
70 to 79 percent specialization	78 107	896 1 630	22 537 38 669	185 364 236 806	133 591 147 821	79 155 117 061	49 261 69 950	106 209 119 745	11 6	5 8 5 9	9 6
51 to 59 percent specialization	78	1 136		262 725		123 208	77 096	139 517	15	9	6

#### Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Average		January t	o March	April to	June
Location of establishment	Number of establishments	number of construction workers	Construction worker hours (thousands)	Construction workers <sup>1</sup>	Hours worked (thousands)	Construction workers <sup>1</sup>	Hours worked (thousands)
	Α	В	С	D	Ε	F	G
United States	31 337	366 871	633 554	342 442	143 939	361 771	157 139
Alabama Alaska Anizona Arkansas California	496	10 299	17 344	10 291	4 020	10 784	4 466
	136	2 074	3 791	1 971	878	2 160	945
	546	4 847	8 043	4 722	1 870	4 727	1 942
	318	3 635	6 382	3 412	1 459	3 612	1 516
	3 651	36 212	60 163	34 433	14 104	35 416	14 884
Colorado	582	6 816	12 823	6 176	2 961	6 603	3 066
	397	6 537	11 419	6 232	2 676	6 218	2 657
	52	835	1 534	725	324	807	377
	59	2 263	3 919	2 525	1 060	2 479	1 040
	1 939	21 818	36 820	20 766	8 494	21 183	9 007
Georgia	746	12 683	22 910	12 502	5 492	12 654	5 796
	166	2 073	3 421	1 909	766	2 086	888
	137	942	1 485	768	280	850	329
	1 158	16 871	29 891	15 400	6 567	16 264	7 113
	551	7 014	12 186	6 302	2 660	6 945	3 012
lowa	423	3 579	6 826	2 838	1 363	3 372	1 629
	453	4 015	6 760	3 723	1 453	4 070	1 733
	323	4 253	7 696	3 922	1 682	4 282	1 954
	472	4 875	8 530	4 826	2 098	5 042	2 162
	157	2 038	3 271	1 822	747	2 010	822
Maryland	568	12 765	19 996	12 332	4 640	12 358	4 939
	805	10 038	17 201	8 854	3 701	9 758	4 187
	1 006	8 048	14 328	6 992	3 077	7 962	3 614
	531	6 025	10 254	4 950	2 126	5 782	2 456
	281	3 404	5 763	3 110	1 253	3 444	1 502
Missouri	757	8 235	15 203	7 702	3 512	8 293	3 935
	159	740	941	698	220	668	222
	268	2 412	3 884	2 026	802	2 503	1 018
	186	1 553	1 998	1 614	487	1 559	476
	179	2 486	4 079	2 418	998	2 435	987
New Jersey	921	11 315	19 577	10 491	4 430	11 538	4 971
	241	2 327	3 536	2 231	826	2 228	949
	1 957	22 273	39 148	20 054	8 672	21 736	9 610
	634	10 132	18 479	9 970	4 363	10 152	4 640
	120	796	1 478	570	249	809	355
OhioOklahoma	1 289	12 660	22 264	11 204	4 851	12 139	5 370
	323	3 390	5 106	3 312	1 153	3 524	1 389
	396	2 242	3 727	2 041	840	2 219	906
	1 390	16 865	30 106	15 344	6 606	16 731	7 555
	131	1 456	2 594	1 282	556	1 489	645
South Carolina South Dakota Tennessee Texas Utah	390	5 525	9 763	5 299	2 282	5 555	2 503
	148	962	1 777	836	384	995	466
	603	10 484	18 003	9 847	4 124	10 616	4 522
	2 215	25 684	44 135	25 375	10 623	25 422	11 054
	340	2 285	3 825	2 172	833	2 111	914
Vermont	96	1 346	2 351	1 347	601	1 389	608
	806	11 156	20 362	10 904	4 941	10 789	4 957
	986	8 361	13 749	7 495	3 026	7 797	3 309
	195	1 540	2 382	1 367	506	1 546	608
	530	5 821	10 626	4 669	1 983	5 734	2 643
	101	840	1 678	646	292	903	467

<sup>&</sup>lt;sup>1</sup>Construction workers during pay periods including 12th of March, May, August, and November.

#### Payroll by State: 1987

July to Se	ptember	October to D	December											
Construction workers¹	Hours worked (thousands)	Construction workers <sup>1</sup>	Hours worked (thousands)		Relative standard error of estimate (percent) for column						Location of establish- ment			
н	ı	J	к	В	С	D	Ε	F	G	н	i	J	К	шеш
392 270	170 470	371 002	162 005	(W)	1	(W)	1	1	1	1	1	1	1	U.S.
10 385 2 293 5 207 4 082 37 888	4 581 1 083 2 183 1 736 15 772	9 738 1 872 4 730 3 434 37 111	4 275 883 2 047 1 671 15 401	2 3 3 5 2	3 5 4 6 2	2 3 4 5	3 4 5 6 2	2 3 4 6 2	3 3 4 6 2	3 4 4 6 2	3 8 5 6 2	2 4 3 5 2	3 7 4 7 2	AL AK AZ AR CA
7 329	3 409	7 156	3 386	3	2	3	3	3	3	3	3	3	3	CO
7 020	3 061	6 678	3 023	2	2	2	2	2	2	2	2	2	2	CT
927	410	882	421	6	10	5	9	6	10	6	10	7	10	DE
2 199	945	1 848	872	3	4	2	4	2	4	3	5	3	4	DC
22 556	9 640	22 768	9 677	2	3	2	3	2	3	2	4	3	4	FL
13 414	6 045	12 163	5 576	2	3	2	3	2	3	2	3	2	3	GA
2 178	893	2 117	873	5	6	4	6	6	6	6	7	6	7	HI
1 112	466	1 039	410	9	12	8	10	8	11	11	15	11	15	ID
19 187	8 552	16 632	7 658	4	3	4	3	3	3	4	3	4	4	IL
7 495	3 325	7 313	3 187	2	4	3	4	2	4	3	4	3	4	IN
4 097 4 306 4 414 4 895 2 259	1 920 1 878 2 093 2 135 886	4 009 3 961 4 395 4 739 2 063	1 913 1 695 1 966 2 133 816	4 4 3 4 5	5 5 5 9	5 5 3 5 6	6 6 5 6 9	5 4 3 5 5	6 5 5 6 9	5 4 4 5 4	6 6 6 8	4 4 4 5 4	5 6 6 6 9	IA KS KY LA ME
13 271	5 307	13 097	5 108	1	2	1	2	2	2	1	2	1	2	MD
10 614	4 579	10 927	4 731	2	3	2	3	2	3	2	3	2	3	MA
9 002	4 014	8 235	3 622	3	4	4	6	4	6	3	4	3	4	MI
6 813	2 916	6 553	2 754	3	3	3	3	3	3	3	3	3	4	MN
3 634	1 514	3 429	1 492	6	7	4	6	6	8	6	8	7	9	MS
8 886	4 028	8 061	3 726	3	3	3	3	3	3	3	3	3	3	MO
853	260	740	237	14	14	15	12	17	18	14	15	16	15	MT
2 594	1 036	2 525	1 027	5	6	5	6	5	6	5	7	5	7	NE
1 627	556	1 414	477	11	12	14	16	13	12	11	12	11	13	NV
2 619	1 092	2 470	1 001	3	4	3	5	3	4	3	4	3	4	NH
11 831 2 617 24 144 10 413 990	5 181 978 10 614 4 795 473	11 402 2 235 23 159 9 993 817	4 994 781 10 251 4 680 400	2 7 2 3 9	3 9 2 4 13	2 6 2 3 9	3 9 2 4 13	3 8 2 3 8	4 10 2 4 12	2 7 2 3 10	3 10 2 4 14	2 8 3 3	3 9 3 4 14	NJ NM NY NC ND
13 936	6 106	13 363	5 937	2	3	2	3	2	3	3	3	2	3	OH
3 568	1 343	3 155	1 219	4	5	4	5	4	5	4	5	5	6	OK
2 365	1 033	2 343	947	6	7	5	7	6	8	7	9	6	7	OR
18 313	8 311	17 073	7 633	2	2	2	2	2	2	2	2	2	3	PA
1 589	734	1 465	658	6	9	6	9	6	9	6	10	7	10	RI
5 752	2 493	5 495	2 483	3	4	3	4	3	4	3	4	3	4	SC
1 075	493	944	433	10	13	10	12	10	12	10	14	10	14	SD
11 260	4 858	10 212	4 497	2	3	2	3	2	3	2	3	2	3	TN
27 088	11 642	24 849	10 814	1	2	2	2	2	2	1	2	2	2	TX
2 554	1 093	2 302	984	5	6	5	5	6	6	6	7	5	6	UT
1 414	621	1 236	519	6	8	5	8	5	7	7	9	7	9	VT
11 586	5 299	11 345	5 163	2	3	2	3	2	3	2	3	2	3	VA
9 107	3 821	9 045	3 592	3	3	3	4	3	3	3	3	3	3	WA
1 797	658	1 448	608	9	13	8	12	10	14	11	12	9	14	WV
6 674	3 054	6 206	2 944	4	5	4	4	4	6	4	5	3	6	WI
1 016	531	796	386	7	9	8	9	8	10	8	10	8	9	WY

#### Table 10. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Thousand dollars. Detail may not add to total due to founding. For meaning		lonno, ooo uppe	, idixeej							
				Construction work done by establishments not located in this State		1982	Percent change 1987	Relative standard error of estimate (percent) for column—		nate or
		on Value of construction te <sup>1</sup> Number work		Value of construction work		construction receipts for work done in this State <sup>1</sup>	(col A) to 1982 (col F)			
	A	В	С	D	E	F	G	Α	С	E
United States	89 793 432	30 967	76 097 796	10 208	13 695 635	52 304 554	71.7	(W)	(W)	1
Alabama	1 504 332 504 518 1 733 576 583 784 12 380 181	477 131 538 315 3 620	1 279 780 417 276 1 474 731 421 924 11 231 210	219 29 182 126 246	224 551 87 241 258 845 161 860 1 148 971	702 635 561 857 778 692 349 202 6 861 618	114.1 -10.2 122.6 67.2 80.4	3 4 2 3 1	3 5 3 4 1	(W) 2 2 (W)
Colorado Connecticut Delaware District of Columbia Florida	1 586 514 1 713 590 206 762 1 066 791 5 411 566	574 393 52 50 1 905	1 333 740 1 538 124 155 933 417 979 4 350 223	147 218 165 290 361	252 773 175 465 50 829 648 812 1 061 342	1 578 182 820 048 200 869 653 917 3 113 792	.5 109.0 2.9 63.1 73.8	4 1 3 1 1	5 1 3 3 2	2 5 7 1 1
Georgia Hawaii Idaho Illinois Indiana	3 056 741 576 605 264 603 4 251 654 1 128 202	727 166 134 1 155 548	2 431 716 515 094 172 682 3 840 747 1 011 154	444 30 148 371 230	625 024 61 510 91 920 410 906 117 048	1 069 829 393 498 229 920 1 794 618 794 907	185.7 46.5 15.1 136.9 41.9	1 3 4 1 2	2 3 7 1 2	2 5 1 2 6
lowa Kansas Kentucky Louisiana Maine	585 377 863 865 873 566 988 439 404 649	421 449 318 465 157	489 701 624 270 642 593 827 628 287 555	157 217 290 172 98	95 676 239 594 230 972 160 810 117 094	543 654 388 088 499 804 1 248 398 155 502	7.7 122.6 74.8 –20.8 160.2	33333	3 4 4 3 4	3 7 3 1 7
Maryland	2 531 411 2 801 696 2 333 932 1 566 101 491 615	561 803 1 001 530 277	2 111 340 2 357 486 2 097 788 1 226 885 421 154	358 221 190 136 139	420 071 444 209 236 143 339 215 70 460	795 455 1 609 177 937 864 784 529 229 988	218.2 74.1 148.9 99.6 113.8	2 1 3 2 4	2 1 3 2 4	2 1 1 1 5
Missouri	1 902 880 156 781 502 086 541 908 514 845	751 156 267 178 175	1 637 294 133 831 388 175 398 758 409 017	252 30 72 119 163	265 586 22 949 113 911 143 150 105 827	929 138 141 721 331 194 452 187 167 331	104.8 10.6 51.6 19.8 207.7	2 10 3 10 2	2 12 4 13 3	4 8 1 7 2
New Jersey	3 110 290 539 415 5 886 804 2 218 036 150 516	911 239 1 938 629 119	2 506 979 441 211 5 393 922 1 762 857 101 139	427 117 309 293 71	603 311 98 204 492 881 455 178 49 376	1 350 004 420 963 2 880 667 882 757 158 902	130.4 28.1 104.4 151.3 -5.3	1 6 1 2 10	1 8 1 3 6	4 5 1 1 28
Ohio Oklahoma Oregon Pennsylvania Rhode Island	3 167 271 697 215 711 557 3 601 648 302 036	1 286 315 390 1 382 129	2 942 587 564 684 591 405 3 244 160 238 855	361 189 97 299 91	224 684 132 531 120 152 357 488 63 180	1 471 351 973 739 562 065 1 778 586 144 528	115.3 -28.4 26.6 102.5 109.0	2 4 4 1 4	2 4 4 2 5	4 5 3 2 9
South Carolina	990 938 170 296 1 981 291 6 035 367 492 322	383 147 589 2 183 328	772 619 133 460 1 742 429 5 405 368 460 567	227 107 274 344 33	218 318 36 836 238 862 629 999 31 755	521 856 114 473 852 285 7 169 596 366 287	89.9 48.8 132.5 -15.8 34.4	2 7 2 1 5	3 8 2 1 5	2 15 3 1 4
Vermont	169 655 3 012 181 2 054 008 244 756 1 091 804 137 432	96 798 973 189 528 100	151 108 2 052 391 1 744 853 160 688 926 898 113 801	69 478 189 151 174 63	18 546 959 790 309 154 84 068 164 906 23 630	70 977 1 044 944 1 305 381 251 925 604 922 260 708	139.0 188.3 57.3 -2.8 80.5 -47.3	6 1 2 7 2 5	6 2 2 10 3 6	31 1 1 3 7

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

## Table 11. Dollar Value of Business Done for Establishments With Payroll by Kind of Business Activity: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	Dollar value of b	Relative standard error of estimate (percent)		
	1987	1982	1987	1982
All kinds of business	91 698 973	52 824 851	(W)	(W)
General building contractor Operative builder Highway and street construction Heavy construction Other construction activities Real estate agents and managers Sale of land Investment builder Other activities Kind of business activity, n.s.k.	85 540 047 220 173 163 713 894 886 1 571 069 133 407 107 663 187 438 1 503 942 1 376 635	45 322 939 193 968 222 680 519 368 (S) 73 373 33 786 127 136 (S)	(W) 6 3 1 3 2 4 4 4 2 2	(%) 2 2 1 (S) 1 2 2 (S) (S)

<sup>1</sup> earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

#### Table 12. Selected Industry Ratios for Establishments With Payroll: 1987 and 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[FO meaning of abbreviations and symbols, see introductory text. To explanation of terms, see appendixes]			
Selected statistics	1987	1982	Relative standard error of estimate (percent) for 1987
AVERAGE PER ESTABLISHMENT			
Number of employees**_  Number of construction workers	15.6 11.7 3.9 377.9 247.5 130.4	16.3 12.6 (NA) 328.3 229.9 98.4	1 1 1 1 1
Dollar value of business done	2 926.2 2 865.4 529.3 1 604.6 23.0 18.2 138.7	2 389.0 2 365.4 432.1 1 391.0 17.3 21.5 190.6	1 1 1 1 1 1 2 2 2
AVERAGE PER EMPLOYEE  Payroll, all employees	24.2 187.7 50.8	20.2 146.8 34.8	(W) (W) (W)
AVERAGE PER CONSTRUCTION WORKER	33.0	0 1.10	(**)
Payroll, construction workers	21.1 244.8 1 726.9	18.3 188.0 1 685.8	(W) (W) (W)
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees\$1,000	33.6	(NA)	(W)
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK <sup>1</sup>			
Payroll, all employees  Cost of materials, components, supplies, and fuels  Cost of construction work subcontracted to others  Rental cost for machinery, equipment, and buildings	.132 .185 .560 .008	.139 .183 .588 .007	(%) (%) (%)

<sup>&</sup>lt;sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

#### Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

				Value of construction work per construction worker (\$1,000)	Average per dollar of value of construction work				
Location of establishment	Average number of employees** per estab- lishment	Payroli per employee (\$1,000)	Construction worker hours per construction worker		Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted to others	Rental cost for machinery, equipment, and buildings	
United States	15.6	24.2	1 726.9	244.8	.132	.185	.560	.008	
Alabama Alaska Arizona Arkansas California	26.4 20.4 12.8 14.6 13.5	19.6 36.4 25.2 16.9 29.5	1 684.0 1 827.9 1 659.4 1 755.7 1 661.4	216.1 205.8 338.8 157.1 328.0	.115 .236 .107 .137 .122	.206 .245 .173 .276 .132	.598 .287 .609 .465 .636	.006 .015 .007 .011 .010	
Colorado	16.1 21.9 21.7 49.6 15.1	24.9 30.8 22.6 25.1 20.2	1 881.3 1 746.8 1 837.1 1 731.8 1 687.6	317.9 289.8 215.4 273.4 213.7	.108 .141 .142 .119 .127	.145 .166 .170 .093 .205	.617 .485 .605 .730 .551	.005 .008 .006 .006	
Georgia Hawaii Idaho Illinois Indiana	23.0 17.0 9.1 18.9 16.4	22.2 28.3 19.4 26.5 24.2	1 806.4 1 650.3 1 576.4 1 771.7 1 737.4	259.1 249.3 215.1 247.3 185.4	.116 .155 .120 .139 .168	.208 .181 .246 .152 .218	.567 .458 .516 .559	.009 .009 .006 .006	
lowa Kansas Kentucky Louisiana Maine	11.3 11.6 16.8 13.7 16.3	21.9 22.2 19.6 18.4 19.7	1 907.2 1 683.7 1 809.5 1 749.7 1 605.0	201.2 214.5 170.9 186.7 155.6	.145 .135 .147 .131 .159	.219 .248 .246 .223 .256	.538 .524 .500 .547 .463	.005 .008 .010 .010	
Maryland	29.4 16.7 10.8 14.9 15.3	24.7 27.5 25.3 25.1 17.1	1 566.5 1 713.6 1 780.3 1 701.9 1 693.0	262.1 251.9 275.4 279.1 156.3	.123 .146 .124 .118 .138	.145 .183 .170 .192 .271	.599 .523 .587 .647 .495	.008 .009 .005 .008	
Missouri	14.9 6.4 11.8 11.2 18.4	28.2 18.2 19.4 22.9 24.1	1 846.1 1 271.6 1 610.3 1 286.5 1 640.8	254.3 190.9 180.6 268.3 200.4	.152 .131 .141 .115 .160	.199 .241 .292 .165 .198	.558 .494 .428 .590 .536	.005 .007 .006 .009	
New Jersey	16.6 12.9 15.4 20.8 8.7	26.9 18.4 28.4 19.1 18.9	1 730.2 1 519.6 1 757.6 1 823.8 1 856.8	256.3 202.6 269.7 200.0 153.2	.142 .121 .143 .124 .162	.177 .207 .169 .246 .299	.555 .514 .531 .480 .439	.008 .009 .008 .006	
OhioOklahomaOregonPennsylvaniaRhode Island	13.0 13.8 8.1 15.9 14.7	24.8 19.7 25.1 25.0 28.4	1 758.6 1 506.2 1 662.4 1 785.1 1 781.6	260.2 188.8 304.7 233.2 308.0	.126 .137 .118 .141 .122	.193 .224 .164 .181 .194	.528 .546 .607 .546 .595	.006 .008 .012 .007 .008	
South Carolina	18.2 8.2 22.5 15.8 9.3	19.0 18.1 20.7 21.7 22.5	1 767.1 1 847.2 1 717.2 1 718.4 1 674.0	159.7 146.0 215.0 237.8 278.6	.153 .156 .125 .124 .111	.258 .306 .216 .207 .171	.477 .391 .532 .569 .578	.009 .004 .008 .008 .015	
Vermont	23.3 17.9 11.2 10.0 14.3 10.5	22.7 22.0 25.3 18.7 25.6 19.2	1 746.7 1 825.2 1 644.4 1 546.8 1 825.5 1 997.6	227.8 201.3 244.1 114.5 201.8 160.3	.165 .142 .137 .208 .165	.312 .190 .184 .267 .222 .225	.441 .567 .533 .345 .449	.015 .009 .009 .007 .008	



# APPENDIX A. Explanation of Terms

Construction—Is composed of three broad categories:

- New construction—Includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators, and plumbing, heating, and air-conditioning supplies and equipment.
- Additions, alterations or reconstruction—Includes construction activity making structural changes to existing facilities. Generally, this type of activity is considered a capital investment in the property.
- 3. **Maintenance and repair**—Includes construction done for the purpose of upkeep of property rather than additional investment in the property.

Examples of the general distinction between maintenance and repair and reconstruction are provided here: roof repairs, including the replacement of shingles, gutters, etc., are classified under maintenance and repairs. A complete reroofing, however, is classified as reconstruction.

Number of establishments in business during year—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

**Proprietors and working partners**—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

All employees—Comprise all full-time and part-time employees on the payrolls of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not.

All employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

Construction workers—Includes all workers up through the working foreman level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category but are included in the "other employees" category.

Other employees—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

Construction worker hours—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1987.

Payroll—Includes the gross earnings paid in the calendar year 1987 to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

**Employer costs for fringe benefits (supplemental labor costs)**—Represents expenditures made by the employer during 1987 for legally required and voluntary fringe benefit programs for employees.

**Legally required contributions**—Include Social Security contributions, unemployment compensation, workman's compensation, and State temporary disability payments.

Voluntary payments—Include life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Dollar value of business done comprises the following detail:

Value of construction work done—Includes all value of construction work done during 1987 for construction work performed by general contractors, special trades contractors, subcontractors, and land development and improvement work. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include the value of buildings and other structures built or being built for sale in 1987 but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease.

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators, etc., were instructed to include both the value for the installation and the receipts covering the price of the items installed.

Excluded was the cost of industrial and other specialized machinery and equipment which are not an integral part of a structure.

Land receipts—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in the value of construction work done.)

Other business receipts—Includes business receipts not reported as value of construction work done or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts

operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Excluded was the value of construction work done and receipts from other business operations in foreign countries and non-operating income such as interest and dividends.

Net value of construction work—Derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Value added—Derived for each establishment, value added is equal to dollar value of business done, less costs for construction work subcontracted to others, and costs for materials, components, supplies and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, land receipts are also subtracted from dollar value of business done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Selected costs—Represents the costs for materials, components, and supplies; costs for construction work subcontracted to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

Costs for materials, components, and supplies include:

- total costs to reporting establishments during 1987 for the purchase of all materials, components, and supplies, except fuels. (Supplies include expendable tools which are charged to current accounts.)
- freight and other direct charges should represent only amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company.
- costs for materials, components, and supplies used by the reporting establishments in the construction or reconstruction of buildings/structures for themselves which are chargeable to their fixed assets accounts, are included in this item as are costs for materials bought and resold to others.
- costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

#### Excluded from this item are:

- industrial and other specialized machinery and equipment, such as printing presses; computer systems;
   etc., which are not an integral part of a structure
- materials furnished to contractors by the owners of projects.

Costs for construction work subcontracted to others include:

all costs during 1987 for construction work subcontracted out to other construction contractors.

#### Excluded from this item are:

- The costs to the reporting establishment for its purchases of materials, components, and supplies, provided to a subcontractor for his use. Such costs are reported under a separate category, "costs for materials, components, and supplies."
- · costs for the rental of machinery or equipment.

Costs for selected power, fuels, and lubricants include:

- costs for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the company.
- costs for natural and manufactured gas, fuel oil, coal and coke products, etc.

Rental costs for machinery, equipment, and buildings—Includes all costs during 1987 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It

excludes costs for the rental of land. It also excludes costs under agreements which, in effect, are conditional sales contracts such as capital leases. Such costs are included in "capital expenditures."

Selected purchased services—Includes all costs during 1987 for communication services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies, or from other establishments of the same company. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property, or the cost of adapting it for another use. Such costs are included in "capital expenditures".

Assets and depreciation—Refers to the original cost of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on assets and depreciation were collected separately for: (1) buildings and other structures, additions, and related facilities; and, (2) machinery and equipment.

Respondents were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1987.

Capital expenditures—Refers to all costs actually incurred during 1987 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment.

If leasing arrangements met the criteria set down by the Financial Accounting Standards Board (FASB) for a capital lease, respondents were instructed to report the original cost or market value of that equipment or building as a fixed asset and capital expenditure if acquired during 1987.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

**Inventories**—Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others, but held by the reporting establishment.

Builders who built on their own account for sale were requested to report work in progress and finished units not sold for buildings and other structures built for sale. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Ownership of construction projects—This item shows the distribution of the value of construction work done by ownership of the project, that is, Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken during the construction phase. Government owned projects are shown separately for Federal, and State and local governments.

Value of construction work subcontracted in from others—Includes the value of construction work during 1987 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

Types of construction—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1987. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose, i.e, office and residential, or commercial, they were to classify the building by major purpose.

In addition all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of these terms.

Building construction:

- Single-family houses, detached—Includes all residential buildings constructed for one family use.
- Single-family houses, attached (include town-houses)—Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken wall from ground to roof.
- Apartment buildings with two or more apartments—Includes high-rise, low-rise, or any structures containing two or more housing units (excluding attached single-family houses and townhouses described above).
- Hotels and motels—Includes hotels, motels, and tourist cabins intended for transient accommodations.

- Other residential buildings—Includes dormitories, fraternity and sorority houses, nurses homes, and other nonhousekeeping residential structures.
- Office buildings—Includes all buildings which are used primarily for office space or for government administrative offices. Also included are banks or financial buildings which are three stories or more.
- Other commercial buildings, such as stores, restaurants, and automobile service stations— Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- Industrial buildings—Includes all industrial buildings and plants which are used to house production and assembly activities. Heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are not included in this category, but under nonbuilding construction.
- Warehouses—Includes commercial warehouses, cold storage plants, grain elevators, mini-warehouses, and other such storage buildings.
- Religious buildings—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.
- Educational buildings—Includes all buildings which are used directly in administrative and instructional activities, such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories which are not a part of a manufacturing establishment, are also included.
- Hospitals and institutional buildings—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- Farm buildings, nonresidential—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- Amusement, social, and recreational buildings— Includes buildings which are used primarily for entertainment, social and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- Other nonresidential buildings—Includes nonresidential buildings which are not classified elsewhere, such as fire stations, prisons, civic centers, bus and air passenger terminals and hangars.

Nonbuilding construction:

- Highways, streets and related work, such as installation of guardrails, highway signs, etc.—Includes streets, roads, alleys, sidewalks, curbs and gutters, culverts, right-of-way drainage, erosion control and lighting. Also includes earthwork protective structures when used in connection with road improvements.
- Outdoor swimming pools—Includes wading pools and reflecting pools.
- Recreational facilities—Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- Bridges and elevated highways—Includes viaducts and overpasses; roads, highways, railroads, and causeways built on structural supports.
- Tunnels—Includes highway, pedestrian, and railroad tunnels.
- Railroad construction—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- Subway construction—Includes urban mass transit subway systems above or below ground.
- Dam and reservoir construction—Includes hydroelectric, water supply, and flood control dams and reservoirs.
- Marine construction—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- Harbor and port facilities—Includes docks, piers, and wharves.
- Conservation and development construction— Includes land reclamation, irrigation projects, drainage canals, levees, and flood control projects.
- Power and communication transmission lines, towers, and related facilities—Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, electric light and power facilities.
- Power plants, except nuclear—Includes electric and steam generating plants.
- Power plants, nuclear—Includes atomic energy plants, and nuclear reactors.
- Sewers, sewerlines, and related facilities—Includes sanitary and storm sewers, and related facilities.
- Sewage treatment plants—Includes sewage treatment and waste disposal plants.
- Water mains and related facilities—Includes water supply systems and related facilities.

- Water treatment plants—Includes water filtration and water softening plants.
- Pipeline construction other than sewer or waterlines—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- Blast furnaces, petroleum refineries, chemical complexes, etc.—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- Other nonbuilding construction—Includes all types of nonbuilding construction, not included elsewhere.



#### APPENDIX B.

# Standard Industrial Classification Titles for Industry Groups and Industries

SIC	Industry titles	SIC code	Industry titles
	madstry titles		madsity titles
15	BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS	17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.
152	General Building Contractors—Residential Buildings	1 <b>73</b> 1731	Electrical Work Special Trade Contractors Electrical Work Special Trade Contractors
1521 1522	General Contractors—Single-Family Houses General Contractors—Residential Buildings, Other Than Single-Family	<b>174</b> 1741	Masonry, Stone Work Tile Setting, and Plastering Special Trade Contractors Masonry, Stone Setting, and Other Stone Work Special Trade Contractors
<b>153</b> 1531	Operative Builders Operative Builders	1742	Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors
154	General Building Contractors—Nonresidential Buildings	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	175	Carpentry and Floor Work Special Trade Contractors
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751 1752	Carpentry Work Special Trade Contractors Floor Laying and Other Floor Work Special
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—		Trade Contractors, Not Elsewhere Classified
	CONTRACTORS	176	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
161	Highway and Street Construction, Except Elevated Highways	1761	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
1611	Highway and Street Construction Contractors, Except Elevated Highways	<b>177</b> 1771	Concrete Work Special Trade Contractors Concrete Work Special Trade Contractors
162	Heavy Construction, Except Highway and Street Construction	178	Water Well Drilling Special Trade Contractors
1622	Bridge, Tunnel, and Elevated Highway Construction Contractors	1781	Water Well Drilling Special Trade Contractors
1/623	Water, Sewer, Pipeline, and Communications and Powerline Construction	<b>179</b> 1791	Miscellaneous Special Trade Contractors Structural Steel Erection Special Trade Contractors
1629	Heavy Construction, Not Elsewhere Classified	1793	Glass and Glazing Work Special Trade Contractors
17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS	1794 1795	Excavation Work Special Trade Contractors Wrecking and Demolition Work Special
171	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1796	Trade Contractors Installation or Erection of Building Equipment,
1711	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	4700	Special Trade Contractors, Not Elsewhere Classified
172	Painting and Paper Hanging Special Trade Contractors	1799	Special Trade Contractors, Not Elsewhere Classified
1721	Painting and Paper Hanging Special Trade Contractors	6552	LAND SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES



# APPENDIX C. Geographic Divisions and States

#### **NEW ENGLAND STATES**

Connecticut Maine Massachusetts

New Hampshire Rhode Island Vermont

#### **MIDDLE ATLANTIC STATES**

New Jersey New York Pennsylvania

#### **EAST NORTH CENTRAL STATES**

Illinois Indiana Michigan Ohio Wisconsin

#### **WEST NORTH CENTRAL STATES**

Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota

#### **SOUTH ATLANTIC STATES**

Delaware
District of Columbia
Florida

Georgia Maryland

#### **SOUTH ATLANTIC STATES—Con.**

North Carolina South Carolina Virginia West Virginia

#### **EAST SOUTH CENTRAL STATES**

Alabama Kentucky Mississippi Tennessee

#### **WEST SOUTH CENTRAL STATES**

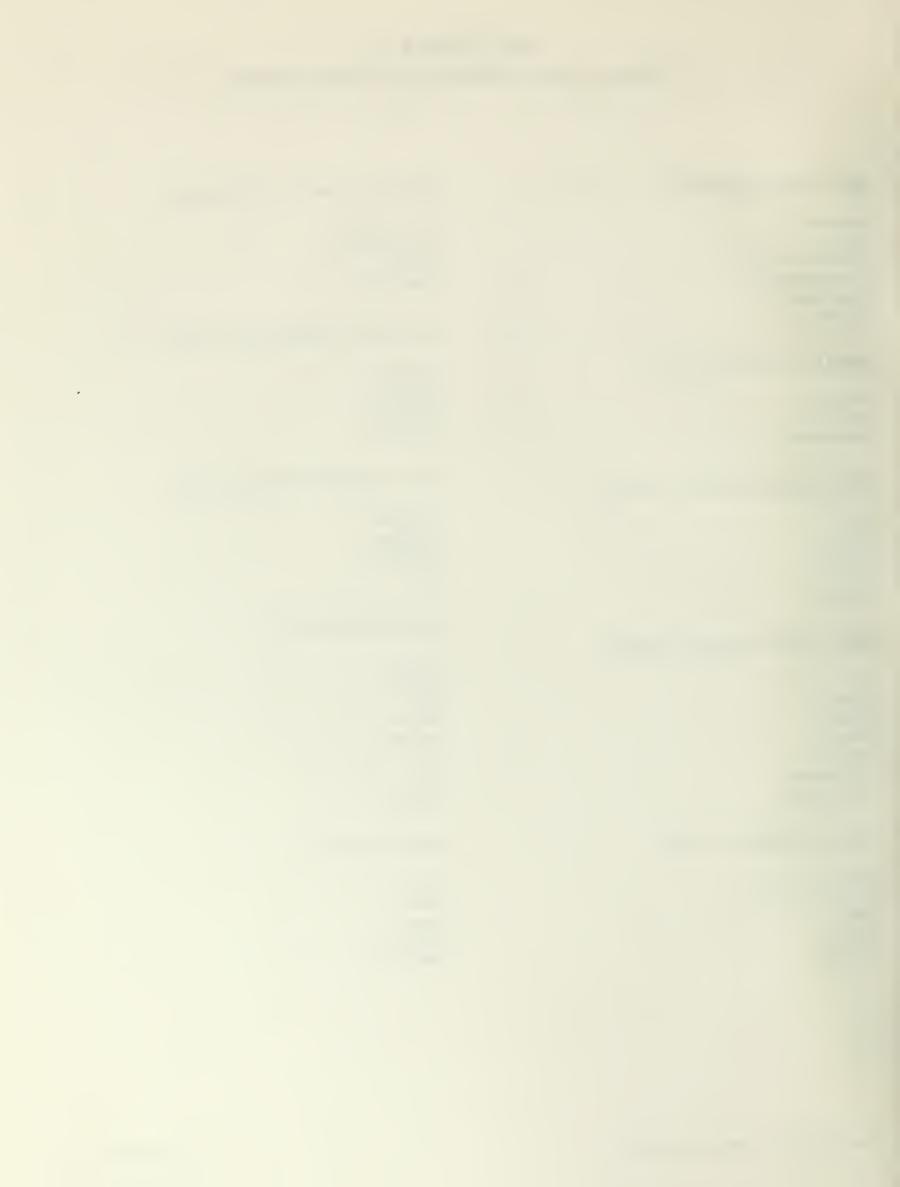
Arkansas Louisiana Oklahoma Texas

#### **MOUNTAIN STATES**

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

#### **PACIFIC STATES**

Alaska California Hawaii Oregon Washington

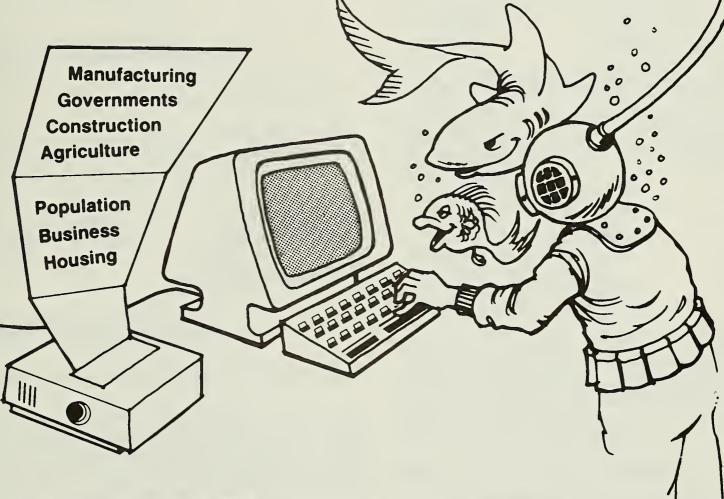


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#### **PUBLICATION PROGRAM**

#### 1987 CENSUS OF CONSTRUCTION INDUSTRIES

The Census of Construction Industries is taken once every 5 years. The census covers all establishments engaged in construction, including:

- · Building contractors
- Heavy construction contractors
- Special trade contractors (including plumbers, carpenters, painters, electricians)
- Land developers and subdividers

Data products in the Census of Construction Industries are issued in 4 publication series and in 3 other media:

Printed reports

CD-ROM [C]Computer tape [T]

• Highlights online [+]

### Preliminary Industry Series (CC87-I-1(P) through CC87-I-28(P))

(Available November 1988 through May 1989) [P]

Twenty-seven separate industry reports and a United States summary report, providing national statistics for establishments with payroll. Statistics shown for 1987 include:

Number of establishments
 Value of construction work

Number of employees
 Payroll

done, by type of structure

- Layron

Hours worked
 Selected operating costs

### Final Industry Series (CC87-I-1 through CC87-I-28)

(Available June 1989 through November 1989) [P] [C] [T] [+]

Twenty-seven separate industry reports and a United States summary report, providing statistics for the Nation and individual States on establishments with payroll. These reports update figures from the preliminary industry series (employment, payroll, value of construction, etc.) and provide measures of the following:

- Capital expenditures
- Inventories
- Industry profiles
- Assets
- Depreciation
- And much more

### Geographic Area Series (CC87-A-1 through CC87-A-10)

(Available January 1990 through March 1990) [P] [C] [T] [+]

Nine reports on the construction industries, representing each census geographic division, and a United States summary report. Regional reports provide detailed data for States and metropolitan statistical areas.

### Subject Report—Legal Form of Organization and Type of Operation (CC87-S-1)

(Available May 1990) [P]

One report providing selected national statistics for each industry by legal form of organization and type of operation. This report includes data for establishments with and without payroll. Data in this report include—

EmploymentPayroli

Value of construction work done

Selected operating costs

#### **OTHER ECONOMIC CENSUSES REPORTS**

The Census of Construction Industries is part of the 1987 Economic Censuses. These are conducted at five-year intervals in years ending in 2 and 7 and consist of seven separate censuses:

- · Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction

...plus several related programs: enterprise statistics; information on minority-owned and women-owned businesses; and the Census of Outlying Areas, including separate economic censuses of Puerto Rico and other outlying areas. The Census of Agriculture and Census of Governments are conducted separately.

#### **HOW TO ORDER DATA PRODUCTS**

Order forms for the specific reports and other data products may be obtained from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233. If you have any questions, call Census Customer Services 1-(301)-763-4100.

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